UNITED STATES PATENT AND TRADEMARK OFFICE

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09/851,478	05/08/2001	Timo Hotti	017341-00050	3767

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EXAMINER
BLACK, LINH

ART UNIT	PAPER NUMBER
2177	8

DATE MAILED: 01/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>08 May 2001</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) <u>1-34</u> is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) <u>15-20,22,25-31,33 and 34</u> is/are allowed.

6)☒ Claim(s) <u>1,2,6,8-11,14,21,23,24 and 32</u> is/are rejected.

7)☒ Claim(s) <u>3-5,7,12 and 13</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application)
since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.
37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific
reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4</u> .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: .

DETAILED ACTION

Claim Objections

1. Claim 8 is objected to because of the following informalities: there is a typo in the

claim: "complient with". Appropriate correction is required.

2. The Independent claims 1, 15, and 29 are vague; there is no clear distinction

between the preambles and the bodies of the claims. The format of the claims is

improper. It is difficult to determine distinct boundaries a between precise claim

limitations in the claims. See Festo Corp. V. Shoketsu Kinzoku Kogyo Kabushiki

Co., 234 F.3d 558, 56 USPQ2d 1865 (Fed.Cir.2000). Appropriate correction is

required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter, which the applicant regards as his invention.

4. Claims 2, 8-10, 21, 23-24, and 32 are rejected under 35 U.S.C. 112, second

paragraph, as being indefinite for failing to particularly point out and distinctly claim

the subject matter which applicant regards as the invention.

5. Claims 8-10, 21, and 23-24 contains the trademark/trade name "UNIX", "LINUX",

"INMARSAT" etc...Where a trademark or trade name is used in a claim as a

limitation to identify or describe a particular material or product, the claim does not

comply with the requirements of 35 U.S.C. 112, second paragraph. Se Ex parte

Simpson, 218 USPZ 1020 (Bd. App. 1982). The claim scope is uncertain since the

trademark or trade name cannot be used properly to identify any particular material

or product. A trademark or trade name is used to identify a source of goods, and not

the goods themselves. Thus, a trademark or trade name does not identify or

describe the goods associated with the trademark or trade name. In the present

case, the trademark/trade name is used to identify/describe "communication

specifications" and, accordingly, the identification/description is indefinite.

6. Claims 2 and 32 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter

which applicant regards as the invention.

    The term "the" on line 4 of claim 2, "configuration management master is stored

to a server comprising **the** at least one database", or line 3 of claim 32 "replica

comprises scripts for creating and/or updating the schema of **the** at least one

database", renders the claim indefinite because it is uncertain that which database

"the" is referring to.

Specification

7.   The specification is objected to for representing a list of documentation as part of the specification. The applicant is advised to remove the "CITED DOCUMENTS" section on page 14 of the specification. The documents are already cited in the Form 1449, paper number 4.

8.   Applicant is reminded of the proper language and format for an abstract of the disclosure. The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

9.   The use of the trademark "UNIX", "LINUX", "INMARSAT" etc... has been noted in this application on page 13. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary

nature of the marks should be respected and every effort made to prevent their use in

any manner, which might adversely affect their validity as trademarks. Applicant's

cooperation is requested in correcting any errors of which applicant may become aware

in the specification.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 1, 6, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Sheth et al., "Federated Database Systems for Managing Distributed,

Heterogeneous, and Autonomous Databases", 1990, pp. 183-236, and further in

view of Shih et al. (USP 6615223).

11. As per claims 1 and 14, Sheth et al. teach "managing database schemas and/or

application configuration data in at least one database system" – pages 198-202;

figs. 9-12 wherein the Federated Database System is defined on page 183. Sheth

et al. teach at least one of the databases comprises a schema of the data stored in

the database – figs. 10-11; page 198, Local schema section. Sheth et al. teach "at

least one schema and/or application configuration is managed externally of said at

4

least one application master database or at least one application replica database" –

figs. 16-22; page 200, second column, External schema section to page 201, first

column, line 4.   However, Sheth et al. also teach "create backup and recovery

facilities in the file system if the federation users will perform updates to data in the

file system" – page 215, first column. However, Sheth et al. do not explicitly suggest

"application replica database".

In the specification, page 2, applicants state: ""Master database" is a

database catalogue, which in a database synchronization system that contains the

official version of synchronized/distributed data. A master database can have multiple

replica databases." An on page 3, first paragraph, applicants state: "This application

master database includes a schema master of the data stored in the database." No

further definition of "application master database" was found in the specification.

Examiner interprets "application master database" in the claims is basically "master

database".

Shih et al. teach "the replication of data in database system." – col. 1, lines 7-8;

fig. 1, elements 4 and 54; col. 4, line 44 to col. 5, line 25.   Thus, it would have been

obvious to one of ordinary skill in the art at the time of the invention to at least have a

replica database for each master database to better the performance of the database

system because when data replication is employed, multiple access locations exist for

the access and modification of the replicated data. "In addition, data replication

provides greater fault tolerance in the event of a server failure, since the multiple copies

of the data object effectively become online backup copies if a failure occurs." – col. 1,

lines 10-22 of Shih et al. Also, when a change request is either received at the master

or replica site, the change instruction is schema-specific. And in a heterogeneous

environment, it cannot simply be sent to all remote replication sites to replicate the data

change. Thus, external schemas are needed so that a change request can be

recognized across all replication sites.

12. As per claim 6, Sheth et al. do not explicitly suggest "at least parts of the

application master database and said parts of said configuration management

replica are synchronized." Shih et al. teach "the replication of data in database

system." – fig. 1, elements 4 and 54; col. 4, line 44 to col. 5, line 45. Thus, after the

same change is replicated to between one of the databases, at least parts of the

master and the replica databases are synchronized. Thus, it would have been

obvious to one of ordinary skill in the art at the time of the invention to combine the

teaching of Shih et al. "the replication of data in database system" with the teaching

of Sheth et al. to better the performance of database system because when data

replication is employed, multiple access locations exist for the access and

modification of the replicated data. "In addition, data replication provides greater

fault tolerance in the event of a server failure, since the multiple copies of the data

object effectively become online backup copies if a failure occurs." – col. 1, lines 10-

22 of Shih et al.

13. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sheth
    et al., "Federated Database Systems for Managing Distributed, Heterogeneous, and
    Autonomous Databases", 1990, pp. 183-236, and further in view of Shih et al. (USP
    6615223) and Dugan et al. (USP 6363411).

14. As per claim 8, Sheth et al. and Shih et al. do not fairly suggest "the method is
    compliant with at least one of the following communication specifications: TCP/IP..."
    Dungan et al. teach "Intelligent Network" – title. Dungan et al. teach an intelligent
    distributed network architecture – col. 31, lines 18-20. Dungan et al. teach a data
    management ("DM") function enabling the run-time storage, replication,
    synchronization, and availability of data used by the service objects in the IDNA
    service nodes." – col. 13, lines 15-18. Dungan et al. teach the use of
    communication protocol: TCP/IP in a distributed environment – col. 18, lines 2-5.
    Thus, it would have been obvious to one of ordinary skill in the art at the time of the
    invention to combine the teachings of Sheth et al. and Shih et al. with the usage of
    TCP/IP, a known protocol that is globally recognized as standard that is reliable for
    data communication on the network in order to take advantage of the good standard
    protocol.

15. As per claim 9, Sheth et al. and Shih et al. do not fairly suggest "at least one of the
    following operating systems is used in at least one terminal including an application
    replica database of the database system: Unix, MS-Windows, NT, and Linux."

Dungan et al. teach an intelligent distributed network architecture – col. 31, lines 18-20. Dungan et al. teach a data management ("DM") function enabling the run-time storage, replication, synchronization, and availability of data used by the service objects in the IDNA service nodes." – col. 13, lines 15-18. Dungan et al. teach "The Service Control functions are embodied by Service Control Servers 405 which may be a general purpose computer, such as an IBM RS6000, DEC Alpha Server, Pentium based Personal Computer, or the like, and running any standard operating system that is compatible with the computer on which it is running may be used; for example, Microsoft Windows NT, UNIX, Sun, Solaris, or VMS." – col. 60, lines 38-45. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Sheth et al. and Shih et al. with the usage of standard operating systems, for example, UNIX or NT, in order to take advantages of these good computers' operating systems.

16. As per claim 10, Sheth et al. and Shih et al. do not fairly suggest "at least one of the following operating systems is used in at least one server including an application master database of the database system: Unix, MS-Windows, NT, and Linux." Dungan et al. teach an intelligent distributed network architecture – col. 31, lines 18-20. Dungan et al. teach a data management ("DM") function enabling the run-time storage, replication, synchronization, and availability of data used by the service objects in the IDNA service nodes." – col. 13, lines 15-18. Dungan et al. teach "The Service Control functions are embodied by Service Control Servers 405

which may be a general purpose computer, such as an IBM RS6000, DEC Alpha

Server, Pentium based Personal Computer, or the like, and running any standard

operating system that is compatible with the computer on which it is running may be

used; for example, Microsoft Windows NT, UNIX, Sun, Solaris, or VMS." – col. 60,

lines 38-45. Thus, it would have been obvious to one of ordinary skill in the art at

the time of the invention to combine the teachings of Sheth et al. and Shih et al. with

the usage of standard operating systems, for example, UNIX or NT, in order to take

advantages of these good computers' operating systems.

17. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sheth et

al., "Federated Database Systems for Managing Distributed, Heterogeneous, and

Autonomous Databases", 1990, pp. 183-236, and further in view of Shih et al. (USP

6615223) and applicants' admitted prior art: fig. 1.

18. As per claim 11, Sheth et al. and Shih et al. do not fairly suggest, "the database is

a database node residing in a database server." Applicants' prior art, fig. 1, teach:

"the database is a database node residing in a database server." However, it would

have been obvious to one of ordinary skill in the art at the time of the invention to

have the database residing in a database server in order to efficiently control the

accessing and modifying of the data in the database.

Allowable Subject Matter

19.   Claims 15-20, 22, 25-31, 33-34 are allowable.

20. Claims 2, 21, 23-24, and 32 would be allowable if rewritten to overcome the

rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action

and to include all of the limitations of the base claim and any intervening claims.

21. Claims 3-5, 7, 12-13 are objected to as being dependent upon a rejected base claim,

but would be allowable if rewritten in independent form including all of the limitations

of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to LINH BLACK whose telephone number is 703-305-

0317. The examiner can normally be reached on Monday-Thursday from 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, JOHN BREENE can be reached on 703-305-9790. The fax phone number

for the organization where this application or proceeding is assigned is (703) 872-9306,

for Before Final communications: 703-746-7239, and for After Final communications:

703-746-7238.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is 703-746-

7240.

Linh Black

LINH BLACK
Patent Examiner
Art Unit 2177